

Abstract

Method for the production of a plurality of optoelectronic semiconductor chips and optoelectronic semiconductor chip

The invention relates to a method for the production of a plurality of optoelectronic semiconductor chips each having a plurality of structural elements with respectively at least one semiconductor layer. The method involves providing a chip composite base having a substrate and a growth surface. A non-closed mask material layer is grown onto the growth surface in such a way that the mask material layer has a plurality of statistically distributed windows having varying forms and/or opening areas, a mask material being chosen in such a way that a semiconductor material of the semiconductor layer that is to be grown in a later method step essentially cannot grow on said mask material or can grow in a substantially worse manner in comparison with the growth surface. Subsequently, semiconductor layers are deposited essentially simultaneously onto regions of the growth surface that lie within the windows. A further method step is singulation of the chip composite base with applied material to form semiconductor chips.

The invention additionally relates to an optoelectronic semiconductor component produced according to the method.

Figure 1d